

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/017228

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16J15/44 F04D29/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16J F04D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 134 465 A (TOYODA AUTOMATIC LOOM WORKS ; EAGLE IND CO LTD (JP)) 19 September 2001 (2001-09-19) paragraphs '0026!, '0027! column 6, lines 51-56 figures 1,2 -----	1,7-9
X	EP 0 905 381 A (EBARA CORP) 31 March 1999 (1999-03-31) column 3, lines 18-25 column 4, lines 19-22 figures 1,2,6 -----	1,2,7-9, 11-13
X	EP 0 167 837 A (LOWARA SPA) 15 January 1986 (1986-01-15) claim 6 figure 2 -----	1,2,7-9, 11-13
	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

18 January 2005

Date of mailing of the international search report

26/01/2005

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Van Wel, O

1

INTERNATIONAL SEARCH REPORT

International Application No
PCT/JP2004/017228

C(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 19 37 418 A (BBC BROWN BOVERI & CIE) 11 February 1971 (1971-02-11) page 1, paragraph 1 page 5, paragraph 2 figure 2 -----	1,2,7,10
X	EP 1 130 294 A (GEN ELECTRIC) 5 September 2001 (2001-09-05) paragraph '0021! figure 4 -----	1-4,6
A	EP 0 039 435 A (JACUZZI INC) 11 November 1981 (1981-11-11) page 9, lines 5-29 claim 4 figures 1,3,4 -----	1-13
A	US 4 643 639 A (CAINE GERARD H) 17 February 1987 (1987-02-17) column 4, lines 55-65 figure 1 -----	1-13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/JP2004/017228	
---	--

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
EP 1134465	A 19-09-2001	JP 2001263499 A		26-09-2001
		EP 1134465 A2		19-09-2001
		US 2001038179 A1		08-11-2001
EP 0905381	A 31-03-1999	AU 5411898 A		23-04-1999
		CN 1213044 A		07-04-1999
		DE 69803023 D1		31-01-2002
		DE 69803023 T2		22-08-2002
		DK 905381 T3		11-02-2002
		EP 0905381 A1		31-03-1999
		WO 9917026 A1		08-04-1999
		US 6082964 A		04-07-2000
EP 0167837	A 15-01-1986	IT 1180991 B		23-09-1987
		AT 41483 T		15-04-1989
		DE 3568833 D1		20-04-1989
		EP 0167837 A1		15-01-1986
DE 1937418	A 11-02-1971	DE 1937418 A1		11-02-1971
EP 1130294	A 05-09-2001	US 6540231 B1		01-04-2003
		EP 1130294 A2		05-09-2001
		JP 2001355737 A		26-12-2001
EP 0039435	A 11-11-1981	AU 7007781 A		05-11-1981
		BR 8102562 A		19-01-1982
		CA 1158922 A1		20-12-1983
		DK 194681 A		03-11-1981
		EP 0039435 A1		11-11-1981
		ES 8207619 A1		16-12-1982
		ZA 8102666 A		29-12-1982
US 4643639	A 17-02-1987	GB 2180003 A ,B		18-03-1987
		JP 62501514 T		18-06-1987
		WO 8603809 A1		03-07-1986